

UNITED STATES OF AMERICA

GENERAL SERVICES ADMINISTRATION

Approved For Release 2002/05/17 : CIA-RDP83T00573R000600200028-7

Automated Data and Telecommunications Service

Washington, DC 20405



DATE:

JUN 11 1976

REPLY TO
ATTN OF:

GSA FIPS Point of Contact

SUBJECT:

FPMR Amendment

To:

FIPS Points of Contact

20-10
C/MS FYE
C/P+P JR
JAY. "OUR BOOK" JR

File

The attached Federal Property and Management Regulation Amendment is forwarded for your information.

The regulation provides standard terminology to be used in solicitation documents when specifying the requirements of FIPS PUB 21-1, Federal Standard COBOL.

Please address any questions regarding this regulation to Mr. Del Shoemaker, CPPS, telephone number (202) 566-1180.

MICHAEL MUNTNER

Acting Assistant Commissioner for
Agency Assistance, Planning, and Policy

Attachment

March 24, 1976

FEDERAL PROPERTY MANAGEMENT REGULATIONS
AMENDMENT E-182

TO : Heads of Federal agencies

SUBJECT: Change to Subchapter E - Supply and Procurement

1. Purpose. This amendment transmits changed pages to Subchapter E - Supply and Procurement. It implements Federal Information Processing Standards Publication (FIPS PUB) 21-1 as the new Federal Standard for COBOL compilers.
2. Effective date. The regulation transmitted by this amendment is effective upon publication in the Federal Register.
3. Background. GSA issues regulations based upon National Bureau of Standards (NBS) FIPS PUBS. In 1968 NBS issued FIPS PUB 21 as the Federal Standard COBOL. In 1975 NBS issued FIPS PUB 21-1 which replaced and superseded FIPS PUB 21. This amendment reflects the change that will include FIPS PUB 21-1 in the FPMR.
4. Explanation of changes. Section 101-32.1305-1 is replaced by a new section 101-32.1305-1 to implement FIPS PUB 21-1 into ADP solicitation documents.



T. M. CHAMBERS
Acting Administrator of General Services

FILING INSTRUCTIONS

<u>Remove Pages</u>	<u>Insert Pages</u>
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(Published in the Federal Register April 6, 1976, 41 F.R. 14517)

Attachment

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- 101-32.801 Definitions.
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SUBPART 101-32.9—ADP COLLOCATION AND CONSOLIDATION PROGRAM

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SUBPART 1-32.13 IMPLEMENTATION OF FEDERAL
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INFORMATION PROCESSING
STANDARDS PUBLICATIONS
(FIPS PUBS) INTO SOLICITATION
DOCUMENTS 101-32.1304-18(a)

All 1-inch-wide perforated tape and related 8-channel paper tape punch and reading equipment resulting from this solicitation utilized in Federal information processing systems, communication systems, and associated terminals employing perforated tape equipment shall provide the capability to accept and generate tapes in compliance with the requirements set forth in FIPS PUB 26.

§ 101-32.1304-14 FIPS PUB 27, Take-up Reels for One-Inch Perforated Tape for Information Interchange.

(a) FIPS PUB 27 specifies the physical dimensions of paper tape take-up (or storage) reels with either fixed or separate flanges. The two types of reels specified differ in the size and shape of the drive hub, but both are intended for use with 1-inch perforated paper tape devices. (Technical specifications of the standard are not included with FIPS PUB 27.)

(b) The standard terminology for use in solicitation documents is:

All 1-inch perforated tape take-up reels and related devices employing such reels, including paper tape readers, punches, and related tape handling equipment, resulting from this solicitation utilized in Federal information processing systems and associated equipment employing such devices shall provide the capability to accept one of the two types of reels specified in FIPS PUB 27.

§ 101-32.1304-15 FIPS PUB 32, Optical Character Recognition Character Sets.

(a) FIPS PUB 32 provides the description, scope, and identification for different character sets (OCR-A and OCR-B) to be used in the application of Optical Character Recognition (OCR) systems. (Technical specifications of the standard are included with FIPS PUB 32.)

(b) The standard terminology for use in solicitation documents is:

All applicable Optical Character Recognition (OCR) equipment or services resulting from this solicitation must comply with the provisions of FIPS PUB 32. Applicable OCR equipment also includes data input devices such as typewriters, line printers, and CRT displays. Applicable services include data preparation and processing of information represented in OCR form.

§ 101-32.1304-16 FIPS PUB 33, Character Set for Handprinting.

(a) FIPS PUB 33 announces the adoption of the American National Standard X3.45-1974, Character Set for Hand-

printing, as a Federal standard. The standard provides the description, scope, and application rules for a character set for handprinting. (Technical specifications of the standard are not included with FIPS PUB 33.)

(b) The standard terminology for use in solicitation documents is:

All applicable Optical Character Recognition (OCR) equipment or services, which result from this solicitation and which are capable of reading handprinted material, must comply with FIPS PUB 33. The applicable services include data preparation and processing of information represented in OCR form.

§ 101-32.1304-17 FIPS PUB 35, Code Extension Techniques in 7 or 8 Bits.

(a) FIPS PUB 35 specifies methods of extending the 7-bit code of the American Standard Code for Information Interchange (ASCII) (FIPS 1), remaining in a 7-bit environment or increasing to an 8-bit environment, building upon the structure of ASCII to describe various means of extending the control and graphic sets of the code. FIPS PUB 35 describes techniques for constructing codes related to ASCII to allow application dependent usage without preventing the interchangeability of their data, and also describes 8-bit codes for general information interchange in which ASCII is a subject. (Technical specifications are not included with FIPS PUBS 35.)

(b) The standard terminology for use in solicitation documents is:

All coded character sets offered as a result of this solicitation which require control function and/or graphic symbols that are not included in the 128 characters of ASCII will be implemented through the use of the code extension methods and techniques as described in FIPS PUB 35.

§ 101-32.1304-18 FIPS PUB 36, Graphic Representation of the Control Characters of ASCII (FIPS 1).

(a) FIPS PUB 36 specifies graphical representation for the 34 characters of ASCII (FIPS 1) for which a graphic representation is not indicated in FIPS 1. Graphic representations are given for the 32 control functions of column 0 and 1 and for the characters "Space" and "Delete." Two forms of graphical representation for each of the 34 characters are provided: a pictorial symbol and a 2-letter alphanumeric code. (Technical specifications are not included with FIPS PUB 36.)

101-32.1304-18(b)

(b) The standard terminology for use in solicitation documents is:

All applicable equipment that may result from this solicitation that prints or displays graphic representations of any or all of the control characters of ASCII (FIPS 1) or of the characters "Space" or "Delete" must comply with the requirements set forth in FIPS PUB 36. This standard also applies to equipment that prints these graphic representations on media such as perforated tape, punched cards, or listings.

§ 101-32.1305 Software standards.

This section provides standard terminology for use in solicitation documents in the areas of standardization listed in § 101-32.1303-3.

§ 101-32.1305-1 FIPS PUB 21-1, Federal Standard COBOL.

(a) FIPS PUB 21-1 specifies the use of the American National Standard COBOL X3.23-1974 as the Federal Standard COBOL. FIPS PUB 21-1 revises and supersedes FIPS PUB 21 and reflects major changes and improvements to COBOL specifications. The revision defines the elements of the COBOL programming language and the rules for its use. The primary purpose of the standard is to promote a high degree of interchangeability of programs for use on a wide variety of information processing systems. All COBOL compilers brought into the Federal Government inventory must be validated in accordance with § 101-32.1305-1a. (Technical specifications of the standard are not included with FIPS PUB 21-1.)

(b) The standard terminology for use in solicitation documents is:

ACQUISITION OF COBOL COMPILERS

Federal Standard COBOL compilers offered as a result of the requirements set forth in this solicitation will be identified as implementing all of the language elements of at least one of the levels of Federal Standard COBOL as specified in FIPS PUB 21-1. Implementation must provide a facility for the user to optionally specify a level of Federal Standard COBOL for monitoring the source program at compile time. Monitoring may be specified for any level at or below the highest level for which a compiler is implemented, and will consist of an analysis of the syntax used in a source program against the

syntax included in the level specified for monitoring. Any syntax not conforming to the specified level will be identified through a diagnostic message in the source program listing. The diagnostic message will contain at least the identification of the source program line number for each non-conforming syntax and identify the level of Federal Standard COBOL that supports the syntax or that the syntax is non-standard COBOL.

The provisions of the FIPS PUB 21-1 will apply to compilers delivered after December 1, 1975. However, a compiler conforming to FIPS PUB 21 that has been validated in accordance with 41 CFR 101-32.1305-1a may be offered for interim use until a compiler conforming to FIPS PUB 21-1 is available. If this interim approach is used, delivery of the compiler conforming to FIPS PUB 21-1 must be accomplished by June 1, 1977.

ACQUISITION OF COBOL PROGRAMS AND/OR PROGRAMMING SERVICES

Business-oriented computer application programs (i.e., those applications or programs that emphasize the manipulation of characters, files, and input/output as contrasted with those concerned primarily with computation of numeric values) offered or prepared as a result of the requirements set forth in this solicitation will be written using one of the levels of Federal Standard COBOL as defined in FIPS PUB 21-1 including optional language elements, if any, as specified herein. Programs using Federal Standard COBOL as specified in FIPS PUB 21 are acceptable until June 1, 1977. However, after that date only programs using Federal Standard COBOL as specified in FIPS PUB 21-1 will be acceptable.

§ 101-32.1305-1a Validation of COBOL compilers.

This section prescribes the policy for testing COBOL compilers that are asserted to conform with one or more levels specified in the Federal Information Processing Standards Publication (FIPS PUB) 21-1, Federal Standard COBOL, and are offered to the Federal Government for purchase or lease. The term validation as used in the context of this section is the process of testing a given COBOL compiler against predetermined conditions and specifying which, if any, conditions are not met.

NOTE: Although this regulation refers to FIPS PUB 21-1 this regulation applies equally to all compilers based on FIPS PUB 21 brought into the Federal inventory subsequent to the effective date of this regulation and during the transition period described in paragraph 11.2 of FIPS PUB 21-1.

SUBPART 101-2.13 IMPLEMENTATION OF FEDERAL
Approved For Release 2002/05/17 : CIA-RDP83T00573R000600200028-7
STANDARDS PUBLICATIONS (FIPS PUBS)
INTO SOLICITATION DOCUMENTS 101-32.1305-1-a(h)

(a) FIPS PUB 21-1 specifies the use of the American National Standard COBOL, X3.23-1974, as the Federal Standard COBOL. This standard defines the elements of the COBOL programming language and the rules for their use. COBOL compilers offered by vendors as a result of requirements set forth by Federal agencies in solicitations must implement the language elements of a designated level of the Federal Standard COBOL. To confirm that an implementation meets the specifications of a designated level of the Federal Standard COBOL, test routines have been developed and approved for use in testing COBOL compilers. These routines are known as the COBOL Compiler Validation System (CCVS). A Federal COBOL Compiler Testing Service (FCCTS) also has been established to provide a validating service for the Federal agencies. The FCCTS is sponsored by the Department of Defense (DOD) under delegation of authority from the National Bureau of Standards (NBS).

(b) All COBOL compilers brought into the Federal inventory shall be validated. The test results for a COBOL compiler shall be used by a Federal agency to confirm that, insofar as the CCVS tests the language elements included in a designated level of Federal Standard COBOL, the compiler meets the specifications of that level of the Standard. When an agency has indicated a waiver to a Federal Standard COBOL specification in a solicitation, only the portions of the language that have been waived are excluded from the validation requirements.

(c) Requests for validations and questions pertaining thereto are submitted to:

Director, Federal COBOL Compiler, Testing Service, Department of the Navy, ADPE Selection Office, Washington, DC 20376.

(d) When a request for validation service requires that compiler testing be performed, the requestor is responsible for providing the necessary test facilities.

(e) In response to a request for validation service, the FCCTS will provide a Validation Summary Report (VSR) reflecting a summarization of the test results.

(f) Validation is performed on a cost-reimbursable basis. The FCCTS will send

the requestor an estimate of validation costs, reimbursable to the FCCTS, which is to be approved before beginning the validation process.

(g) Unresolved questions and/or any ambiguities that are identified by the FCCTS or by the requestor shall be referred to the NBS in accordance with FIPS PUB 29.

(h) The standard terminology for use in solicitation documents is:

VALIDATION OF COBOL COMPILERS

In addition to the specified mandatory COBOL compiler requirements stated in the specification portion of this solicitation, all COBOL compilers brought into the Federal inventory as a result of this solicitation, the most recent release of which has not previously been tested, must be tested using the official COBOL Compiler Validation System (CCVS). Validation shall be in accordance with Federal Property Management Regulation (FPMR) 101-32.1305-1a. The results of the validation shall be used to confirm that the compiler meets the specified requirements of the designated level of FIPS PUB 21-1 Federal Standard COBOL. To be considered responsive the vendor shall:

(i) Certify in his proposal that all COBOL compilers offered in response to this solicitation have been submitted for validation as set forth in FPMR 101-32.1305-1a.

(ii) Agree to correct all deviations from the standard reflected in the Validation Summary Report (VSR) not previously covered by a waiver. All deviations must be corrected within 12 months from the date of contract award unless a shorter period is specified elsewhere in this solicitation. If an interpretation of the Standard is required that will invoke the procedures set forth in FIPS PUB 29, such requests for interpretations will be made within 30 calendar days after contract award.

Any corrections that are required as a result of decisions made under the procedures of FIPS PUB 29 will be completed within 12 months of the date of formal notification of the interpretation to the contractor. Failure to make required corrections within the time provisions set forth above shall be deemed a failure to deliver required software. The liquidated damages as specified for failure to deliver either operating system or other software shall apply. In addition, such failure falls within the purview of the default clause. If the required corrections are not made within the time provisions specified above, subsequent proposals submitted to the Government offering the deficient COBOL compilers or subsequent uncorrected versions thereto shall be considered non-responsive.

101-32.1305-2

§ 101-32.1305-2 FIPS PUB 24, Flowchart Symbols and Their Usage in Information Processing.

(a) FIPS PUB 24 establishes standard flowchart symbols and specifies their use in the preparation of flowcharts in documenting information processing systems. (Technical specifications of the standard are not included with FIPS PUB 24.)

(b) The standard terminology for use in solicitation documents is:

All new information processing system documentation involving the use of flowcharts that may result from this solicitation document must comply with FIPS PUB 24.

§ 101-32.1305-3 FIPS PUB 30, software summary for describing computer programs and automated data systems.

(a) FIPS PUB 30 provides for the use of Standard Form 185, Federal Information Processing Standard Software Summary, and the instructions for de-

scribing computer programs and/or automated data systems for identification purposes. (Copies of SF-185 are available as a GSA Federal supply stock item FSN 7540-118-8541.)

(b) The standard terminology for use in solicitation documents is:

All documentation of computer programs and/or automated data systems that results from this solicitation must include completed SF-185 summaries as described by FIPS PUB 30.

§ 101-32.1306 Applications standards.

This § 101-32.1306 is reserved for future reference to FIPS PUBS and to standard terminology for use in solicitation documents in the areas of standardization listed in § 101-32.1303-4.

§ 101-32.1307 Data standards.

This § 101-32.1307 is reserved for future reference to FIPS PUBS and to standard terminology for use in solicitation documents in the areas of standardization listed in § 101-32.1303-5.

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